

EDITORIAL

Dear Reader,

Freedom has many dimensions. In the first two issues of this year, we illuminated some of the political and societal dimensions of freedom and the legal framework that underpins it. This issue focuses on another aspect of freedom: the fulfillment of our existential needs. Hardly anything restricts freedom as much as a threat to the basic necessities of life, for example, a lack of food, clean water, or a safe place to live. These necessities can be threatened by wars or by catastrophes such as crop failure, floods, or fires. We investigate how increasing climate extremes are endangering the basic necessities of life and how we can safeguard them.

In many parts of the world, drought and heavy rainfall are making food production difficult or even impossible. Plant breeders are looking for varieties that can be used to feed the population, even in regions that are particularly affected by climate change. Hybrid plants can produce a higher yield and be more resistant to harmful environmental influences. However, these properties are lost in the next generation. A team at the Max Planck Institute for Plant Breeding Research is searching for a way to permanently preserve these properties in the seeds of hybrid plants.

Increasing dryness not only threatens agriculture, but also increases the risk of wildfires, which can wipe out vegetation in one fell swoop. The prevention of and effective fight against such wildfires is the mission of the Global Fire Monitoring Center, which the United Nations has now elevated to become the Global Fire Monitoring Hub. One of the GFMC's key findings is that it is often more effective to work with fire than against it. Meteorological teams across the world are researching why wildfires are occurring with increased frequency and intensity. Altered precipitation patterns are one of the main causes here and one of the gravest aspects of climate change. We describe how the water cycle will continue to change and the measures we can take in response.

Alongside all the necessary efforts to adapt to already palpable and future changes in the climate, there is one thing in particular that will secure the basic necessities of life for future generations: decisive action to halt global warming. Science and research are creating the basis for this action.

In this spirit, we wish you a stimulating read!

Your Editorial Team